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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/648,111      | 08/26/2003  | Kiyoshi Tanikawa     | 43780.010701        | 3159             |

32361 7590 03/26/2004

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EXAMINER

SHAH, MANISH S

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2853

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/648,111

Applicant(s)

TANIKAWA ET AL.

Examiner

Manish S. Shah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/12/2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, applicant claiming "the particle diameter of the powder and the ultraviolet stabilizer are less than a half of a diameter of the liquid". It is not clear, how one can measure the diameter of liquid. Claim is doesn't make any sense.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

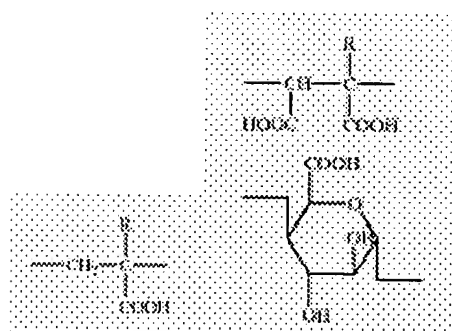
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5 & 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noguchi et al. (# US 6439713) in view of Ikeda et al. (# US 5876989).

Noguchi et al. discloses an image recording method in which an image on an intermediate transfer medium is produced by supplying a liquid thereon in response to

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an image signal, and said image is then transferred to a recording medium so as to produce a recorded image (see figure), the image recording method including the steps of forming a layer of an intermediate transfer element removable on a surface of the intermediate transfer medium (element: 1), the intermediate transfer element including a powder having a water absorbing ability (element: P), the layer being dissolved and swellable by the liquid on the intermediate transfer medium and enabling a viscosity of the liquid recording thereon to be increased (column: 1, line: 50-60); producing an image on the intermediate transfer medium by supplying the liquid on the intermediate transfer medium (element: 6; column: 1, line: 550-60; column: 2, line: 10-25); and transferring the image on the intermediate transfer medium to the recording medium (column: 1, line: 60-65; column: 2, line: 25-45). They also disclose that the powder includes at least one polymer selected from the group consisting of polymer of the following formula (column: 2, line: 54-67; column: 3, line: 1-17).



Noguchi et al. differ from the claim of the present invention is that the intermediate transfer element including an ultraviolet stabilizer, wherein the stabilizer is

selected from benzophenone based, benzotriazole based, cerium oxide and titanium oxide.

Ikeda et al. teaches that to improving image quality and storage stability, intermediate transfer element includes the ultraviolet stabilizer, wherein the stabilizer is selected from benzophenone based, benzotriazole based, and cerium oxide (column: 11, line: 43-59).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the intermediate transfer element of Noguchi et al. by the aforementioned teaching of Ikeda et al. in order to have a recording medium with improved image quality and improving the image storage stability.

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noguchi et al. (# US 6439713) in view of Ikeda et al. (# US 5876989).

Noguchi et al. discloses an image recording apparatus in which an image on an intermediate transfer medium is produced by supplying a liquid thereon in response to an image signal, and said image is then transferred to a recording medium so as to produce a recorded image (see figure), the image recording apparatus including a forming portion for forming a layer of an intermediate transfer element removable on a surface of the intermediate transfer medium (element: 1), the intermediate transfer element including a powder having a water absorbing ability (element: P), the layer being dissolved and swellable by the liquid on the intermediate transfer medium and enabling a viscosity of the liquid recording thereon to be increased (column: 1, line: 50-

60); a liquid supplying portion for supplying the liquid on the intermediate transfer medium of which surface has the layer so as to produce an image thereon (element: 6; column: 1, line: 550-60; column: 2, line: 10-25); and transfer portion for transferring the image produced thereon to the recording medium (column: 1, line: 60-65; column: 2, line: 25-45).

Noguchi et al. differ from the claim of the present invention is that the intermediate transfer element including an ultraviolet stabilizer.

Ikeda et al. teaches that to improving image quality and storage stability, intermediate transfer element includes the ultraviolet stabilizer, wherein the stabilizer is selected from benzophenone based, benzotriazole based, and cerium oxide (column: 11, line: 43-59).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the intermediate transfer element of Noguchi et al. by the aforementioned teaching of Ikeda et al. in order to have a recording medium with improved image quality and improving the image storage stability.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noguchi et al. (# US 6439713) in view of Ikeda et al. (# US 5876989) as applied to claims 1-3, 5 & 8 above, and further in view of Ito et al. (# US 5352652).

Noguchi et al. and Ikeda et al. teaches all the limitation of the image recording method except that the intermediate transfer element includes the ultraviolet stabilizer having an amount of from about 0.1 to 10 % by weight relative to the powder.

Ito et al. teaches that to get the sharp and light resistance printed image, intermediate transfer element includes the UV-ray absorber and/or light stabilizer added in an amount of 0.5 to 10 parts and 0.5 to 3 parts by weight respectively (column: 19, line: 5-23).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the intermediate transfer element of Noguchi et al. as modified by the aforementioned teaching of Ito et al. in order to have a light resistance and sharp printed image.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


(1) Morikawa et al. (# US 6084620) discloses the image forming apparatus and image forming method using recording medium, the method including the steps of printed ink on the intermediate transfer element and then transfer the ink on to the recording medium (figure: 25). They also disclose that the solid member having the swelling property with respect to a solvent contained in the ink (column: 29, line: 48-67).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Manish S. Shah  
Examiner  
Art Unit 2853

  
MSS  
3/17/04